



A.D. 1838 N° 7654.

SPECIFICATION

OF

STEPHEN GEARY.

PREPARATION OF FUEL.

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GEARY'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, STEPHEN GEARY, of Hamilton Place, New Road, in the County of Middlesex, Architect, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her
5 Letters Patent under the Great Seal of Great Britain, bearing date at
Westminster, the Twenty-eighth day of May, in the first year of Her reign,
did, for Herself, Her heirs and successors, give and grant unto me, the said
Stephen Geary, Her especial licence, full power, sole privilege and authority,
that I, the said Stephen Geary, my exors, admors, and assigns, or such others
10 as I, the said Stephen Geary, my exors, admors, or assigns, should at any
time agree with, and no others, from time to time and at all times during
the term of years therein expressed, should and lawfully might make, use,
exercise, and vend, within England, Wales, and the Town of Berwick-upon-
Tweed, my Invention of "IMPROVEMENTS IN THE PREPARATION OF FUEL;"
15 in which said Letters Patent is contained a proviso that I, the said Stephen
Geary, shall cause a particular description of the nature of my said Invention,
and in what manner the same is to be performed, to be inrolled in Her
said Majesty's High Court of Chancery within six calendar months next and
immediately after the date of the said in part recited Letters Patent, as in and
20 by the same, reference being thereunto had, will more fully and at large
appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said
Stephen Geary, do hereby declare the nature of my said Invention, and

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the manner in which the same is to be performed, are fully described and ascertained in and by the following statement thereof (that is to say):—

My Invention relates to a mode of preparing fuel from certain well-known combustible and other matters as will be hereafter described; and, in order to give the best information in my power, I will in the first place state the various matters which may be employed in preparing fuel according to my Invention. 5

First.—Pitch or such like bituminous matters obtained from

coal tar or from other mineral or vegetable tar, or from

india rubber (caoutchouc) - - - - - 100 parts.

Secondly.—Coal cinders or coke, or powdered peat or bark of 10

trees pulverized, or sawdust, or tan, such substances

or matters being in a dry state - - - - - 187½ parts.

Thirdly.—Clay, dry and coarsely powdered, or, instead of clay,

fine sand may be employed or free stone powdered, or

chalk, or plaster, or earth, or the cinders of wood, or 15

generally any earthy matter well powdered and dry - 187½ parts.

Fourthly.—Small of coal - - - - - 500 parts.

Fifthly.—Acids - - - - - 25 parts.

1000 parts.

Now I would remark that I am aware that most of these matters have 20
 been before used, or proposed to be used for the purpose of fuel, and they have
 been combined together in varied proportions, I do not therefore lay any claim to
 the same separately or combined when not according to my Invention as here-
 after stated and accurately defined. The above-mentioned materials, or some
 of them, are to be blended together, and prepared into a fuel in the following 25
 manner:—The pitch or matter named as the first material is to be melted in a
 suitable large vessel, and the cinders, or some one or more of the matters
 mentioned secondly, are to be gradually introduced amongst the melted pitch,
 keeping the matters in the vessel constantly stirred. The clay, or some one
 or more of the matters mentioned under the head thirdly, are to be gradually 30
 applied and well stirred into the matters previously in the vessel, heat being
 constantly kept up to the matters so being mixed. One half of the small coal
 may now be gradually supplied and stirred into the mixture in the vessel, and
 stir the matters well together till the whole mixture is equally and well heated,
 then pour in the acid, still stirring (I prefer sulphuric acid, that acid being the 35
 cheapest for the purpose, but I do not confine myself thereto, as other acids may be
 employed which will produce a like effect), which will produce a froth; and soon

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as the effervescence is apparent introduce the remainder of the small coal, stirring in order to blend the matters equally, and continue the stirring till the whole becomes well and equally heated, when the mixture may be permitted to run from the vessel into moulds, which should be of a quadrangular or other figure, 5 which will produce blocks of a shape to pack closely together when the same have been well dried. When the matter has been run into the moulds, and partly cooled, pressure or beating may be applied in order to compress the blocks into as small a space as possible, but this is not essential, though where stowage is material it is desirable that the blocks should each be well beaten 10 or pressed into the mould.

Having thus explained the nature of the materials employed by me, and the manner of combining the same, and having been particular in stating quantities of the matters which I have found best to answer the purpose, I would have it understood that variations may be made without departing from my 15 Invention, which does not consist in the quantities of the matters employed, nor is it necessary, in all cases, to use one or more of the matters contained under secondly and thirdly, in a fuel, though I consider it better to do so. And I would have it understood that what I claim as my Invention is the mode of preparing fuel by combining small coal with melted pitch, and with other 20 matters when in a heated state, and causing the mixture to be acted on by acid, as above explained, but I do not claim the combining such materials when an acids is or are not employed.

In witness whereof, I, the said Stephen Geary, have hereunto set my hand and seal, this Twenty-eighth day of November, One thousand 25 eight hundred and thirty-eight.

STEPHEN (L.S.) GEARY.

AND BE IT REMEMBERED, that on the Twenty-eighth day of November, in the year of our Lord 1838, the aforesaid Stephen Geary came before our said Lady the Queen in Her Chancery, and acknowledged the Specifi- 30 cation aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

Inrolled the Twenty-eighth day of November, in the year of our Lord One thousand eight hundred and thirty-eight.

LONDON :

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HENLEY.

